THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by WILLIAM HUNTING, F.R.C.V.S.

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A NEW VETERINARY DEGREE.

On October 26th the Royal University of Ireland adopted a resolution of the Standing Committee that degrees of Bachelor and Doctor of Veterinary Medicine be instituted. This further recognition of the veterinarian will undoubtedly assist us in taking our position among the learned professions. The degrees are open only to those who have obtained the licence of the R.C.V.S., so that no danger to our one-portal system is presented. To Sir Christopher Nixon is due the credit of obtaining this recognition, and he has too often insisted upon the value and importance of a one-portal entrance to occasion alarm to the most jealous or nervous member of our profession. Sir Christopher has, ever since our first acquaintance with him when he promoted the Royal Veterinary College of Ireland, shown an enthusiastic interest in veterinary affairs, and has devoted an amount of time and intelligent effort to the advancement of veterinary science that has earned and obtained our gratitude.

In London, Liverpool, Edinburgh, and Dublin we now have opportunities of securing University degrees. We hope our young men will take advantage of them, and we are certain that those who do will possess an advantage over their fellows in securing appointments of the greatest value.

THE INCUBATIVE PERIOD OF RABIES.

Truth has done a great deal to expose imposture and correct error, but all its efforts are not equally well directed. It has recently made a little attack upon the Board of Agriculture in reference to the regulations imposed upon imported dogs. *Truth* considers these "needlessly severe and harassing," but it bases its whole criticism upon the assumption that "six weeks is the period of incubation for rabies."

Probably it will be allowed that from three to six weeks is the average period, but it would be absurd to base preventive measures upon an average. A quarantine period which is trustworthy must extend over the maximum time which is known to elapse between the infliction of a bite and the appearance of disease. This is too obvious to require further argument, and therefore the question is—What is the maximum period?

The late Prof. Ferguson, of Dublin, reported a case he saw at Alfort where a few days short of a year had passed before the dog showed signs of disease. In Woodroffe Hill's recently published sixth edition of *The Dog* a very full and fair collection of opinions and statistics will be found. Such authorities are quoted as Peuch, Renault, St. Cyr, Bouley, Haubner. The first named gives 95 days as the maximum. The next two 118, and the last two authorities have known an odd case extend to 200 days. In the face of this evidence the period of quarantine adopted by the Board—180 days—does not seem excessive. It must be remembered that only after a severe struggle was Rabies stamped out, that we have been free for some years, and that the introduction of one unrecognised case would probably re-infect a district.

SWINE ERYSIPELAS.

By HARRY W. PERCY, M.R.C.V.S., Chatteris, Cambs.

On page 85, Friedberger and Fröhner's Veterinary Pathology one reads the following note by Mr. Sidney Villar:

"In England swine erysipelas is neither markedly contagious nor infectious, and does not appear to occur either as an epizootic or enzootic disease. In fact it seldom attacks more than one or two pigs in a herd."

As the above note is contrary to my experience and is likely to be misleading to my brother practitioners, I feel it my duty to record a very serious outbreak of the disease which has occurred in my district in the Isle of Ely.

On June 22nd I was called in to inspect a herd of about 60 pigs with the following history:

The owner noticed the day previous several of his best pigs refusing to eat, and on going out the following morning found three of them dead. As the owner suspected the animals were poisoned I was called out to investigate the matter.

On making enquiries I found that there had not been any fresh importations into the herd, all the pigs having been bred on the farm. On examining some of the pigs which were ill I found them showing the following symptoms.

The animals appeared very weak, sleepy, and greatly depressed, refusing all kinds of foods which were offered to them. When made to rise they did so with difficulty and with a painful grunt. If left alone for a short time they would lie down again. They were very feverish, 107-108°, constipated, and the urine was of a very high colour. About 24 hours after the pig was noticed to be ill, small red spots appeared on several parts of the body, more particularly the sides and ears. These spots varied in size from a pin's head to that of a half-crown, sometimes the spots were more or less round, others being diamond shaped. Later on large, irregular, dark purple areas occurred, covering nearly the whole of the body. The discolouration of the skin varied very much, some animals being almost entirely free until immediately before death, which usually occurred from 24 hours to four days. During the later stages of the disease in fatal cases the pig became quite unconscious of its surroundings, refused to move, and in a few cases just previous to death hæmorrhage from the nostrils occurred.

On making a post-mortem I invariably found rigor mortis was more marked than one would expect from an animal which died from a febrile disease.

On making an incision into the red spots of the skin I found the discolouration extended into the subcutaneous tissue into which in healthy animals in good condition the fat is deposited.

On opening the abdomen the peritoneum was normal with the exception of some small hæmorrhagic spots, but on opening the stomach it showed every sign of intense inflammation, more particularly in the region of the pylorus. The mucous membrane was somewhat swollen and covered with a thick layer of mucus. The dark red discolouration of the stomach varied, sometimes very intense, other times to a far less extent. The anterior part of the colon was greatly inflamed, but in no case was the cæcum affected to the same extent.

The mesenteric glands were in most cases greatly enlarged, and when cut the surface presented a dark-red colour. The spleen was invariably large, soft and of a purple colour.

In the majority of cases the kidneys were enlarged and showed evidence of nephritis, although in others nothing abnormal could be detected.

Bladder normal to all macroscopic appearances. The liver was enlarged and friable, and on section presented a greyish brown colour.

The lung in every case free from abnormality except what one would expect from post-mortem changes if left very long before the examination was made.

The heart also was free from abnormality except some slight congestion in parts of the lining of its cavitres. In chronic cases I found the usual vegetative growths.

From the foregoing clinical and post mortem examination, and the history of the animals having been fed on uncooked potatoes which had begun to throw out long shoots, I came to the conclusion that the animals were poisoned by potatoes.

As I did not consider it a case of swine fever I advised the owner to send them all away to be slaughtered, which order was duly carried out.

I did not hear of any other pigs being ill until about the middle of July, when a disease similar in character to the one I have described broke out in a village three miles distant.

Since then something like 100 cases have been reported with a loss of over 300 pigs, not to mention about 70 pigs which were slaughtered for food. In addition, over 1000 pigs have been sent away from the district since the disease broke out, and all that remains are old sows and small pigs.

The rapid spread of the disease and the great loss which the farmers have sustained have created quite a panic in the neighbourhood, as pig rearing is one of the staple industries. To show the virulence of the disease, one farmer in little more than a week lost 45 pigs for which he was offered £4 15s. each some days before.

Now, when one takes into consideration the number of pigs infected and the rapid spread of the disease, it is very hard to believe that "swine erysipelas in England is neither markedly contagious nor infectious, and that it does not occur as an enzootic or epizootic disease, or that it only attacks one or two pigs in a herd.

For my own part, I believe that swine erysipelas as it is at present in this district is enzootic, likely to be epizootic, as well as highly infective. These isolated cases of swine erysipelas which have been reported in the past are, I am inclined to believe, a benign form of swine erysipelas which might be more properly classed under name of swine urticaria to distinguish it from the infective form of swine eysipelas.

It is well known that the disease on the Continent takes on an enzootic and epizootic character. That an alien of such a virulent and terrible character in his own country could, by merely crossing the channel, be transformed into such a benign and harmless creature is worthy only of the credulity of those who hail with open arms the filth and scum of Europe to our shores. On the other hand one would naturally expect that when an epizootic disease was carried into this country where high feed and choice breeding is the order of the day, that the disease would be more virulent than ever. We all know from past history that when a disease first makes it appearance in a country that it is more virulent and fatal, becoming later on rarer and milder on account of the gradual attentuation of the virus, as it passes through the several bodies.

If the disease is infective the first question one has to decide is—How came the disease to break out in this district. Now one would naturally say that the disease must be spread by the importation of a diseased pig into the district. From enquiries which I have made I fail to find any trace of a pig which was brought into this district from a distance. In nearly every case where the disease broke out the pigs were either bred by the owner or bought from a neighbour.

Reappearance of a Disease which broke out some years ago.

On one farm where the owner lost a number of pigs I learned that some score of years ago over 50 pigs were slaughtered as suffering from swine fever. At that time bacteriology was only in its infancy, and there was no way by which one could diagnose one disease from another with any degree of certainty, and it was usual to class all epidemics amongst pigs as swine fever. Now it is quite possible that this disease may have been swine erysipelas. If that be so, one could not find a more suitable soil for its reappearance than this Fen district.

Geology.—The Fenlands must be looked upon as low lying land, in fact it is nothing more or less than a great shallow basin excavated in clay. The under rock or strata being Oxford clay, capped by boulder clay, capped by peat, but in the cases of town and villages the boulder clay is capped by marine and valley gravel, as shown by the presence of salt water and fresh water fossils found in it. From the formation of the crust of the earth in this district one could not expect such good drainage as if it were built on a good porous subsoil. In fact one cannot bury the carcase of a pig more than 3 or 4 feet before the grave fills with water, and as the bodies decompose the virus is carried in the water as it passes into the drain. Like the snakes

in Ireland, there are no wells in the Fen, all the drinking water being collected from the drain round about. From the foregoing one can easily see the absurdity of burying animals suffering from a contagious disease in the Fen, more particularly when the bacilli have great resisting power.

Imported Corn.—Much of the corn which is ground up in this country for feeding stuff I am sorry to say comes from abroad. Now it is quite possible, though not at all probable, that the disease may have been imported in this way.

Bacteriology.—On this subject I shall say nothing, as I have nothing to add to what has already been written on the subject, and if I were to write anything I would merely have to pirate it from one of the present day text books.

Mode of Infection.—I regret to say that there has not been any proper scientific investigation of this outbreak made, although one could not wish for a more favourable opportunity for carrying out work of this sort. What I should like to see carried out would be cultures made from the various secretions and excretions such as fæces, urine, milk, saliva, and tears, not to mention the various glands of the body, the blood, and expired air. If such an investigation had been made I consider the disease would be an angel in disguise, for what we would lose in pigs we would gain in knowledge, and thus be prepared if it ever broke out again in our midst.

Contagion.—I do not believe that the disease can spread by one pig coming in contact with another except through broken skin, and then this would come under the heading of inoculation.

Inoculation.—We all know that disease may be spread in this manner, and it is within the bounds of reason to suppose that the disease may have been spread in this way. From time to time as I examined pigs which were suffering from the disease I was always struck by the number of flies which were about, and indeed the attendant described them as eating the pigs alive. Now it is quite possible that these flies may have inoculated one pig to another, as in nearly every instance there were small abrasions on the ears. No one except those who study the disease on the spot, or without the aid of a map, could have any idea how the disease gradually spread from farm to farm.

How far flies go in pursuit of food or pleasure I have no idea, but any one who has driven a deal in a country place cannot help noticing how long flies keep up with the horse. Is it not possible that flies may have carried the virus from farm to farm on their feet, wings, and other anatomical arrangement, even although one must allow that they are not blood suckers.

How far cats and rats were responsible for the spread of the disease I am unable to say, but they had every opportunity of carrying and spreading the disease, as several dead pigs were lying about for days before ordered for burial.

Alimentary Canal.—It is usual to describe water, milk, and food as the three commonest vehicles by which bacteria are carried into this channel, but when you come to the case of a pig, one can more easily imagine than describe.

It is said that the disease may be spread by the consumption of flesh of infected animals and excreta.

Pasteur, Lydtin, and Schottelens assert that they have produced the disease by feeding pigs on erysipelas material: against these we have the negative results of Petri, Fischer, and Bang.

In all scientific investigations, however, a negative proves nothing; therefore we must take it as proven that the disease can be spread by eating erysipelas material, providing we are unable to show that some accident occurred during the experiment which would nullify it. The negative evidence, however, is not without some value, as it shows that the eating of infected meat and excrements do not *always* infect. This I consider is a matter of great importance, as many believe that this is the most common method by which the disease is spread, owing to the intense inflammation which is found in the stomach. This lesion in the stomach I am inclined to believe is due to the toxins circulating in the system having some peculiar action on the vaso-motor nerves, and not to the local irritant.

Respiration.—It is said that infection is not carried in the air, and that healthy pigs may live in close proximity without fear of contracting the disease, if the animals are prevented from coming in contact with the diseased ones, even when the air is allowed to pass freely from one stye to another. With this statement, although made by a great authority, I do not agree. I firmly believe the infection is carried in the air as well as by liquid and foods, not to mention intermediary bearers such as man, cats, dogs, flies, and rats. So long as the vehicle which carries the virus is moist there is no fear of it being carried in the air, but immediately it becomes dry it is carried in the air owing to the influence of a current, and obeys the law of gravitation, and in this way is carried into the lungs.

Period of Incubation.—Of this I know nothing positive, but am inclined to think it is something like a few days.

Treatment.—Except in isolated cases I find the administration of medicine very little use. In some cases, however, I believe the disease was stayed by the administration in the food of Sol. Hydrarg. Perchlor. et Pot. Iodid. These I gave in the hope that it would disinfect the alimentary canal as well as act as an alterative to the system. When the animal refused the above I gave the following powder.

℞ Hydrarg Subchlor
Beta Naphthol
Antifebrin
Sodæ Salicyt.
Bismuth Subnit.

Prevention.—Isolating the diseased animals from the healthy is almost useless, as the disease would only spread further and further. Whenever the disease broke out I invariably advised the owner to have all his pigs slaughtered which were fit for market as my experience of the disease is—the first loss is the best.

Action of the Board of Agriculture.—As this is now a matter of ancient history I shall say nothing,

although I fear the Board will have to give an account of their stewardship to twelve good men and true, presided over by one who will administer justice without fear or favour.

MILK FEVER: AN UNUSUAL CASE.

By J. H. Parker, M.R.C.V.S., Faringdon, Berks.

On May 4th last I received an urgent call to attend a five-year-old pure bred Jersey cow, which had calved at middle day on May 3rd, and was left apparently all right at night, but on cowman going at 6 a.m. on the 4th he found her down.

I saw her at 8 a.m. and found her lying on her left side, loins and extremities cold, pulse 100 and fairly good, respirations scarcely perceptible and oral. She was quite comatose, and to look at casually appeared as if she were dead.

After stripping the udder she was injected with air filtered through cotton wool containing a little Iodoform, and the spine stimulated.

At 6 p.m. she was up and feeding, and doing well. Udder was well massaged, and she was left at night apparently well.

At 6 a.m. on the 5th she was found down again, comatose, and symptoms as before. Injected her udder every two hours with air. At 6 p.m. she was resting on her sternum, quite conscious. At 6 a.m. next morning, she was up and doing well, and appeared to be going on all right.

On the morning of the 7th she was down again, comatose; pulse fast and irregular, and was aptly described by a friend of mine as "Having lost its brake." Air injections were employed as before She regained consciousness at night, but did not get up till a week afterwards (May 14th) although she fed well and ruminated, etc. One day she would raise her hind quarters, and the weakness seemed to be in front; another day she would raise her fore parts and be unable to raise the hind ones. When she did get up the hind leg (right one) was swollen from the stifle to hock, and pitted on pressure. She had evidently lost the use of it, as she knuckled over on the fetlock which rested on the ground.

Had the leg well massaged, but on the 17th sloughing commenced at the back of the fetlock, and a piece extending from there to the foot came clean out. Applied tow and Stockholm tar, and a bandage. On the 24th the inside claw came off, and we had a leather boot made into which we put a sponge and some tar. With this she seemed fairly comfortable, and could get about. She eventually got the use of her leg, and a brittle kind of horn formed over the foot, and she has fatted two calves during the summer.

The unusual points to me are recovery after being comatose three times; the paralysis and regaining use of right hind leg; and the sloughing of the heel and foot.

I have kept a record of 123 cases treated by the air method, and have had 116 cases of complete recovery and never a case of bad udder; and from the result obtained I am of the opinion that the so-called milk fever is due to an anærobic micro-organism which secretes a narcotic poison in the udder chiefly during colostrum formation, which being absorbed into the blood gives rise to the coma etc., that the injection of air destroys the micro-organism, or prevents it forming more poison, and that the cow as a rule can recover the poison she has absorbed.

I used to inject Chinosol or Pot. Iod., but one day, eight miles from home, I found the bottles broken in the box, and used air only on a very bad case, which made a good recovery. A little iodoform on the wool gives a smell to the air and acts as a placebo.

GASTRO-ENTERITIS IN THE HORSE.

The following type of gastro-enteritis prevailed as an enzootic among heavy draught horses, resulting in the loss of 33 per cent. of those affected.

The subject, an aged draught horse, had been ailing for two days previous to my first visit.

I found him standing quietly in a stall showing no visible signs of discomfort beyond a curious anxious expression frequently associated with abdominal pain. He had eaten nothing for the last twelve hours, and showed little inclination to drink. Respiration accelerated (25 per minute), expiration occasionally accompanied by a snorting sound. Pulse imperceptible, surface temperature unevenly distributed, extremities cold, skin tense, slight tympanitic distension of abdomen, but no sign of pain evinced on pressure. Conjunctiva somewhat injected, mouth dry, temp. 101° F.

Urine passed normally, the colour resembling that of dark sherry. Bowels constipated, and normal peristaltic sounds altered to a peculiar gurgling as of water flowing through a pipe. Manual exploration revealed a dry condition with a few pellets of slimy fæces in the rectum.

On the following day I ascertained upon enquiry that he had been rather restless, pawing and walking round the box in which he had been placed. He had eaten nothing, and drank only a little gruel.

The characteristic haggard expression was still a prominent symptom. Respiration and pulse remained in the same condition. Surface temperature and extremities cold, in spite of rugs and bandages. Temp. 102° F. Constipation had given place to slight diarrhœa.

In the evening he appeared more uneasy, walking round the box, sniffing at objects as if wishing to feed, and neighing on the approach of any one.

Diarrhœa was now well marked, and sour and offensive in odour. Urine clear, appetite and thirst in abeyance, temp. 102·6° F. The flank was tucked up, fetlocks knuckled and general signs of weakness exhibited. Death occurred on the following morning at 6 a.m.

Autopsy.—On opening the abdominal cavity an amount of serous exudate estimated at about one gallon escaped. The mucous membrane of the

bowels showed throughout an acute inflammation, particularly well marked in the cæcum, which presented here and there submucous extravasations and gangrenous areas. Mesenteric glands were swollen and infiltrated.

The lesions in the stomach resembled in a slighter degree those of the intestines. The contents of stomach and intestines was liquid and the colon contained a quantity of sand.

Careful examination failed to reveal the presence of any intestinal parasites which might have been responsible for the enteritis. A few larvæ of the G. equi were found in the cardiac portion of the gastric mucous membrane. The other organs of the body appeared healthy.

Treatment included removal to roomy and well veutilated loose box, warm rugs and bandages, hot fomentations to abdomen. Administration of oatmeal and wheat flour gruel, warm enemas, linseed oil, Tincture of opium, Spirits of nitrous ether, and hypodermic injections of morphia and atropine.

Remarks.—This animal was used for carting and had been subject to slight attacks of colic, indigestion being indicated by depravity of appetite in eating sand which served as bedding. The notable features presented by the case, contrary to those usually encountered are—the insidious nature of the attack, the sub-acute character of the symptoms during life compared with the acute lesions discovered post-mortem, absence of thirst and high temperature. Medicinal treatment had very little if any effect in checking the course of the disease, the origin of which, in the absence of other demonstrable causes must be attributed to bacteria acting on a debilitated constitution induced by cold, exposure to wet, and unhygienic stabling.

H. A. Reid.

PERFORATION OF THE INTESTINES BY WORMS.

Subject.—Four months old foal with its dam at grass during the day and now brought in at night for food and shelter. Both were taken to watering trough in the morning and taken back to loose-box as the day was wet. The foal did not drink, but nothing particular was noted at this time. At 11 a.m. the foal was seen to be dull and listless, and the condition continuing I was sent for.

At 3 p.m. I found the foal in the natural recumbent position, the nose resting heavily on the straw and the breathing hurried. On standing she propped herself by the fore legs, stood quiet and occasionally looked round to her flank. The mucous membranes were injected and the pulse imperceptible, tremors of the caput muscles, nose very cold, lower lip pendulous, rolling of the eyeballs, haggard expression, ears looped and cold, extremities cold, intestinal murmurs absent, temperature 102 F.

Suspecting some bowel lesion a laxative, combined with a stimulating anodyne draught was attempted to be given, but it was seen she was scarcely able to swallow. The extremities were rubbed by wisps of straw, and mustard applied to the abdomen and the body clothed. In the course of an hour she lay down twice, but immediately staggered to her feet again. The next time she failed to rise, gave a struggle and died.

Post-mortem made at 4.15 p.m., immediately after death. The abdominal cavity was half filled with a straw coloured fluid, and the small intestines were greatly discoloured. On manipulation these seemed full and had a doughy feel to the fingers. Spotted here and there on the mesentery, and on some parts of the bowel, were small patches of ingesta. Some of the convolutions of the bowel were agglutinated but easily separated. On closer examination of the discoloured part of the bowel and close to its attachment with the mesentery, a perforation of the size to admit one's little finger was detected. On opening up the bowel for a yard or more on either side of the perforation a small quantity of fluid escaped and the lumen of the bowel was solely occupied by great numbers of the ascaris. The mucous membrane was intensely injected and the coats of the bowel considerably thickened. All the other organs were healthy.

This is interesting in as far as this foal showed no symptoms of being affected with, or as having passed any worms during life. She was thriving, well nourished, and in the pink of condition. Another feature is the sudden collapse of the foal, as from the condition of the bowel one may have suspected definite symptoms of illness some days previous to death.

Manxland.

UNUSUAL SEQUEL TO A CASE OF IMPACTION.

Subject.—A black 7-year-old cart gelding, taken ill on Wednesday morning with impaction and acute abdominal pain, which did not yield to treatment until the following Friday morning, and from this time made steady progress toward recovery until Monday morning when he was found down and unable to get up.

Examination showed one hind quarter very much swollen, hard and emphysematous, and undoubtedly in a state of gangrene. The horse died the same night. The cause was most probably due to extensive bruising of the quarter against the sides of the box by the animal throwing himself down when in pain.

Assistant.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS AT PARIS.

Relations between Human and Animal Tuberculosis,

In the First Section an interesting discussion was held in which Dr. Behring, Dr. Kossel, Dr. Lydia Rabinowitsch, and Dr. Arloing, as well as several prominent British representatives, took part. The majority of the Congress were clearly in favour of regarding bovine tuberculosis as vastly important and constituting a real danger to the human race, especially to children, who

depend so much on the milk of cattle. The following motion was carried :—

The Congress, after hearing the *exposé* of the most recent investigations, declares that it is not only indispensable to avoid contagion from man to man, but also to pursue the prophylaxis of bovine tuberculosis, and to continue to take administrative and hygienic measures to avert its possible transmission to our species ; and finally, that it is desirable to be on our guard against all forms of animal tuberculosis.

The Second Section was occupied with an instructive discussion on

The Comparative Study of the Various Forms of Tuberculosis.

The first communication was by Prof. S. Arloing, of Lyons. He pointed out that hitherto the majority of the observers who had investigated tuberculosis as seen respectively in man, mammals, birds, and cold-blooded animals had confined their attention to the differences existing between the bacilli found in the various species of living creatures as regards their morphology, growth, and pathogenic action. But if a different plan was adopted and the manner in which the bacilli resembled one another was noted, and if also the various facts observed by different investigators were compared, then the conviction was arrived at that all the bacilli connected with tuberculosis seen in various animals and birds were only varieties of one and the same species and that they were not separated by any well-marked differences. Prof. Arloing pointed out that certain slight variations were known to exist in tubercle bacilli as found in human beings as well as between those which were found in animals. He refered to surgical tuberculosis and drew attention to the various lesions which presented themselves. He attributed the differences to qualitative modifiation of the virus. He further said that so far as his investigation had proceeded he recognised two degrees of virulenee of tuberculosis, the more feeble of the two producing leisons of localised "scrofulous tuberculosis" (*scrofulo-tuberculeuses localisées*). He then went on to speak of cutaneous tuberculous conditions and of lupus. With regard to the latter, he remarked that the virus of "tuberculous lupus" was generally more feeble than that of scrofulo-tuberculosis when the latter affected the lymphatic glands. But occasionally both might exhibit a great increase in virulence equalling that of the virus of pulmonary tuberculosis. Prof. Arloing then proceeded to make a comparison between human tuberculosis and that of animals, and arrived at the conclusion that human and bovine tuberculosis were of the same nature and were inter-transmissible. Reviewing the whole results of his investigations he maintained that the types of tuberculosis described by some bacteriologists were in reality only varieties of the disease. These varieties were produced by an exaggeration of the varying phenomena and pathological changes which the bacillus could produce in the same species of animal. He also made the interesting statement that all the varieties of the tubercle bacilli which had been described might be agglutinated in various degrees by the serum of tuberculous patients. All the varieties were more or less likely to produce tuberculin in cultures and agglutinating substances in the blood of a living organism. Prof. Arloing was further convinced that in regard to public health all forms of animal tuberculosis must be regarded as dangerous. He admitted, however, that among human species the most frequent mode of transmission was from man to man.

Another paper was by Dr. H. Kossel, of Giessen. After a careful review of the results obtained by others and from his own observations he believed that two distinct types of tubercle bacilli could be distinguished, which it was convenient to designate temporarily as the human type and the bovine type respectively. Tuberculosis, which was found so widely amongst cattle, was caused by the bacilli of the bovine type. Swine were more easily affected by the bovine type but they also responded to the human type. Human tuberculosis was mainly caused by infection of the organism with bacilli of the human type and this form was transmissible from man to man. Tuberculous lesions could, however, be produced in man by bacilli of the bovine type. Dr. Kossel was of the opinion that tuberculosis could be transmitted to man by the flesh or milk of tuberculous animals, but he contended that the chance of this mode of contracting the disease was very uncommon compared with the danger that existed in connection with tuberculous patients when sufficient precautions were not taken in regard to disinfection.

Dr. M. P. Ravenel made a communicatiou on the same subject. He referred to the announcement by Professor Koch at the International Congress on Tuberculosis held in London, that human and bovine tuberculosis were different disease. Not knowing that the matter was engaging the attention of Professor Koch Dr. Ravenel had been conducting an extensive study of the comparative virulence of the tubercle bacillus from human and bovine sources, and he found that there were certain fairly constant differences in the cultural, morphological, and tinctorial characters of tubercle bacilli from human and bovine sources. More striking, however, was the difference in virulence, cultures from bovine sources showing a vastly greater pathogenic power for all experimental purposes except in the case of guinea-pigs and swine, which proved so susceptible to both races of bacilli that little distinction could be detected. He detailed a series of elaborate investigations which he had made in an attempt further to elucidate these matters, and concluded by formulating certain conclusions which in the light of their present knowledge he believed to be justified. They were as follows :—1. The division of mammalian tubercle bacilli into two types, human and bovine, had been amply confirmed. These types had cultural, morphological, and tinctorial characteristics by which they might usually be recognised. The chief point of difference, however, was found in the very much greater pathogenic power of the human type. Human bacilli were, however, met with which had low pathogenic power. 2. No other species of mammal had been shown to harbour a variety of tubercle bacillus so constant in its characteristics as to justify its classification as a third type. 3. Other species suffering from tuberculosis derived their infection from man or from cattle. 4. The human tubercle bacillus, as a rule, had a low pathogenic power for cattle, but cultures were not infrequently found which were virulent for the bovine race. 5. The bovine tubercle bacillus had the power of invading the human body and of producing the lesions of tuberculosis. 6. They were at present unable to state the exact proportion of cases in which bovine tuberculosis was transmitted to man but in view of the evidence at hand they must regard the disease in cattle as the source of a certain part of human tuberculosis, and any relaxation in their laws and precautions against bovine tuberculosis would be most unwise.—*The Lancet.*

In the Edinburgh Sheriff Court last week, before Sheriff Maconochie and a jury, a middle-aged man named Wm. Jackson was sentenced to eighteen months' imprisonment for "lifting" from Prestonfield, Duddingston, four bullocks belonging to Messrs. Wood Brothers, butchers and graziers. Cattle lifting is not such a heroic and highly appreciated business as it was in the days when the ancestors of the Minister of Agriculture for Scotland were Border rievers.—*N.B.A.*

MADRAS VETERINARY COLLEGE.

Second Anniversary.

The Second anniversary of the College was celebrated on Wednesday, Oct. 11, on the grounds of the College new premises on the Vepery High Road for the first time. The proceedings of the day commenced at an early hour in the morning when the finals in the Tennis Tournament were played and the results were adjudged. The students then assembled together at breakfast, and later in the evening the annual sports were held. The programme was a long one and one of the events (Henry Savery Race) had to be abandoned, apparently owing to want of time. The grounds presented a good appearance, and both the staff and the students evinced a great deal of interest in the running of the sports. A committee consisting of Major W. D. Gunn and Mr. G. T. D'Silva (judges), Mr. J. F. Valladares (starter) and Mr. H. C. Sampath Aiyengar (time-keeper) were responsible for the conduct of the sports.

During the evening the students and the staff of the College were "At Home" to their friends, who had assembled in pretty large numbers.

The sports over, a public meeting was held in the hall of the College, with the Hon. Mr. A. E. Castle-Stuart in the chair, for the purpose of unveiling an enlargement of the portrait of Major W. D. Gunn, presented by the College staff and the students. Major Gunn organised the Bengal Veterinary College in 1893 and was its first Principal. After being so for three years he was transferred to Simla as Assistant to the Inspector-General, on account of his knowledge of Indian cattle and their diseases.

What with visitors and what with students the hall was filled to its full capacity, and the Chairman in opening the proceedings said that before he proceeded to unveil the portrait, it had been brought to his notice that that was the first time the hall was used for a public function. It was therefore fitting that he should say a few words concerning the hall. The College, as they were all aware, had been in existence since Oct., 1903, and it was only in July this year that the building was occupied by the College. It was pleasing to him to observe that the studentss attending the College had considerably increased since then. There were now on the rolls 20 students studying in the senior class, and 25 studying in the junior class; besides these, 36 students had recently been taken in the probationary class. As regards the senior class, he hoped that the whole, or, at any rate, a large percentage of those attending the class, would pass their final examination to be held in December next. As the head of the Agriculture Department he expressed that desire. (Loud Cheers.) He observed that just now the demand for trained veterinarians was very great. In fact no branch of public service afforded such a vast field as the Veterinary Department for the young educated public. The economic development of the country, as he had heard, depended upon the Swadeshi movement, and he hoped that all the people of the country were Swadeshis. He reminded them that agriculture was a great industry of the country. Government had acquired a large tract of land in Coimbatore for the development of agriculture, and one of its objects related to subjects connected with cattle. They wanted a large number of veterinarians just now; and at present if they could get 100 veterinarians they could find employment for them. Government had shown great interest in the development of this branch, and had spent over one and a quarter lakh of rupees in the construction of the building. In declaring the building formally open, he hoped that the students would evince a great deal of interest in their work. (Cheers). Happily for him, happily for them all, and still more happily for Major Gunn they were assembled there to do honour to him. He need not remind them that "good wine needs no bush." In the face of the gift of the enlargement of the portrait of Major Gunn by the staff and the students of the College in grateful appreciation of Major Gunn's efforts, it was impossible, the Chairman said, to proceed further without giving an account of the donors and of the subject. Fortunately, Major Gunn was sitting behind him, and he could not see his blushes. (Cheers). The idea of presenting the portrait originated from the College staff and the students. A spontaneous movement as it was, it showed how much they appreciated the efforts of Major Gunn, and this was the strongest link of affection between the Principal and the students—an affection that bound them together and without which they should not have been there that evening. It was not a customary thing to have a portrait unveiled of every Principal, but it was reserved for Major Gunn. (Cheers.) Major Gunn was no stranger to them. He came down to India in 1878, and after serving in various parts of the country retired altogether from service. At the end of a few months, however, Major Gunn came back to India—an incident that was not very common, but one that abounded with credit to himself. He then served in several capacities and won the sympathies of all he came in contact with. He (the Chairman) observed that religions had certain fundamental principles common to them all, and he was of opinion that Coleridge had not been far wrong when he said: "He prayeth best, who loveth best all things both great and small." He could not recall to mind a single man in his acquaintance who had loved man, and bird, and beast so much as Major Gunn did.

He had said enough to show that Major Gunn had at heart their interests both in work and in p lay. The races, at which he had not, unfortunately, arrived earlier, showed the amount of interest Major Gunn took in play, bearing in mind that "all work and no play made Jack an idle Turk." It was therefore a credit not only to the donors, but also to the donee, if he could so term it, that they had so graciously thought of presenting the College with a portrait of Major Gunn.—*The Madras Times.*

GLASGOW VETERINARY COLLEGE.

The introductory address at the opening of the Winter Session of the Glasgow Veterinary College was delivered on the 26th October by W. Owen Williams, F.R.C.V.S., F.R.S.E., Professor of Veterinary Medicine and Surgery, Liverpool University. Dr. Cowan Lees, Glasgow, presided. Principal McCall and the Professors of the College were present, and there was a large attendance of students and practitioners from the surrounding counties including Messrs. Weir, Robb, Blue, McNicol, Campbell, Roy, McFarlane, all of Glasgow; Jarvie, Carluke, Rutherford, Henderson and Frew, Edinburgh; Constable, Inchture; Begg, East Kilbride; Pollock, Hamilton; Brownlee, Coatbridge; Campbell, Helensburgh; Miller, Strathaven; Forbes, Kilmarnock; McAllister, Johnstone; Hamilton, of Hamilton; Robertson, Kirkintilloch; Anderson, Cupar Fife; McMurrick, Helensburgh.

Professor Williams' address was a well reasoned series of comments on veterinary education, veterinary politics, and the veterinary outlook. He praised the constitution of the Royal College of Veterinary Surgeons in several particulars, and commended the system of popular representation, and the regulations which prohibited a member of Council of the R.C.V.S. from acting as an examiner, but he thought it hardly fair that schools should be represented so unequally on the Council, and that any one school through an overwhelming number of votes could obtain a decided advantage irrespective of comparative efficiency. Again, although

there were about 500 veterinary practitioners in Scotland, not one of these was in any way represented on the Council. Principals McCall and Dewar were there but not as practitioners; the basis wanted broadening so that the rank and file might be represented.

He emphasised the need of outside support for veterinary education, and the benefits which would accrue from the mutual study of diseases in man and animals, by co-operation of medical men and veterinary surgeons in the Universities. As things are at present it is only in the English speaking countries that veterinary science is left severely alone, and has to struggle on without recognition from the State. In Brussels the Veterinary School has an endowment of £120,000 for building and equipment, whereas £20,000 or £30,000 could buy up any of the existing Colleges in Great Britain. The affiliation of his own College with the University in Liverpool had been a step in the right direction. Referring to the future of the profession he did not for a moment anticipate that the motor car would take the place of the horse, there was room for both, and each possessed its own advantages. If the motor car had encroached on the veterinary practitioners province there were many new fields opening up in which their services would be required. The preparations of the various vaccines and antitoxins which were yearly increasing in amount and importance in both the veterinary and medical treatments of disease should be in the hands of the veterinary profession. In the future every town of any importance would have a veterinary surgeon as meat inspector. Inspection of dairies and stables should be in the hands of the veterinary surgeon and not of the medical officer. The openings in the Army insured a salary of £250 to begin with, and £150 for equipment, while in the Indian Civil Service there were increasing numbers of opening in which £400 per annum was given, and at the end of twenty years service a pension of 20s. per day. A large number of veterinary surgeons would be required in our vast colonies where original research and investigations were urgently needed to control and eradicate the numerous tropical and other diseases which played such havoc with the agricultural interests and wealth of these new countries; for example horse-sickness, surra, Texas fever, rinderpest, anthrax etc., and he commented upon the advantages such a life would contain. He counselled the juniors to remember that they were now men among men, and to guard their honour, and after they had obtained their diplomas and entered on life's battle never to do any action which would reflect on their honour as individuals, or on the profession they represented. He advised all of them to send the first guinea they earned to the Veterinary Defence and Benevolent Society and so benefit those of their number who might be worsted in the fight.

The CHAIRMAN, in moving a vote of thanks to Professor Williams, spoke of the value of the work of the veterinary surgeon to the medical profession and thought that too little attention had been paid to the veterinary aspect of some communicable diseases such as tuberculosis, where probably the key to the cure lay in the hands of the veterinary profession. Glasgow College should be affiliated to the University, that was the natural line of development for such an Institution. It was not creditable to them in the West of Scotland that an Institution of that kind should depend on private enterprise. There was no fear of such a contingency in the hands of Principal McCall, but the possibility that the College might be closed depending on the whim of one man, was not the basis on which such an institution should rest.

Principal MCCALL afterwards announced the prize list for the last session, and a vote of thanks having been passed to the Chairman on the motion of Rev. Peter Auton, Kilsyth, the meeting separated.

AGRICULTURE IN BOMBAY.

The following Press Note has been issued by the Bombay Government:—

In continuation of the Press Note, dated 19th April, 1905, regarding the measures adopted for the extension of agricultural research and the improvement of agricultural education in the Bombay Presidency, the Governor in Council is pleased to announce that the Government of India have sanctioned an addition of 3½ lakhs of rupees to the fixed assignment made under the Provincial Settlement for the expansion of the Bombay Department of Agriculture and the Civil Veterinary Department in this Presidency.

A separate Central Agricultural College and Research Station will be established at Poona with a expert staff consisting of the Professor of Agriculture, the Economic Botanist and the Agricultural Chemist. The services of a second expert Deputy Director of Agriculture will also be entertained.

Two new farms will be instituted, one in the Panch Mahals and one at Bassein in the Thana District. Lands will be added to certain experimental farms to serve as cotton seed farms, and increased expenditure will be incurred upon the selection and distribution of good seed to cultivators. Plots will be rented temporarily from ryots for the demonstration of improved methods of cultivation which it is desired to introduce into general agricultural practice.

A separate appointment of Director of Agriculture will be created. Improvements will also be made in the Bombay Veterinary College, and a bull farm in Sind will be established.—*Times of India.*

SCIENCE OF MILKING.

Our knowledge as to the influence exerted by the nervous system upon the physiological tissues is very meagre, and for this reason some recent experiments undertaken, in order to try to bring about an artificial excitation for the purpose of improving the milk secretion, are of considerable interest. M. Lepoutre, of the Agricultural Institute of Belgium, has made the experiment tests for the purpose of determining the influence exerted by milking upon the quality of milk, upon its composition, and particularly upon the proportion of its fatty materials.

Broadly considered, the operation of milking is practically a process of massage that has the effect of drawing from the udder a quantity of milk much greater than that which it contained at the outset. The udder of a good cow may, before the operation, contain three quarts of milk already formed, while if the animal is well treated, the udder may yield from 10 to 15 quarts.

It follows also from these tests that milking exerts a great influence upon the proportion of the fatty materials contained in the fluid. This influence is due, according to the experimenter, to the peripheric excitation of the nerves of secretion, which in their turn, by reflex action, bring about a greater excitation of the glandular cells. If we consider the general case of milking from two teats at once, as usual, we find that the effect produced is not the same during the entire period of the milking. The milk extracted from the first two teats is generally richer in fat than that of the two milked last, and their richness will be greater if we simultaneously milk the two teats of one side, than if we simultaneously milk one teat of one side and one of the other, and then the remaining two—in other words, if we do the milking laterally instead of diagonally. The phenomenon is singular, but is explainable by the fact that in diagonal milking the excitation extends to all of the nerves of the gland, while in lateral milking it ex-

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaugh-tered *
GT. BRITAIN. Week ended Oct. 28		16	19	..	..	31	46	..	..	18	15	61
Corresponding week in	1904 ..	19	26	..	..	30	43	..	..	7	11	23
	1903 ..	9	12	..	..	26	51	..	..	16	10	39
	1902 ..	12	15	..	..	24	40	..	..	15	23	179
Total for 43 weeks, 1905		811	1140	..	..	1026	1765	..	..	713	680	3044
Corresponding period in	1904 ..	832	1280	..	..	1303	2284	..	..	1115	1079	5028
	1903 ..	626	942	..	..	1241	2122	..	..	1270	1251	6508
	1902 ..	553	875	1	120	970	1746	12	11	1179	1401	6649

Board of Agriculture and Fisheries, Oct. 31, 1905.

IRELAND. Week ended Oct. 21		..	..	..	..	2	8	..	..	2	..	..
Corresponding Week in	1904 ..	..	..	..	..	1	1	..	..	7	1	139
	1903 ..	..	..	..	..	..	..	..	..	8	3	68
	1902 ..	..	..	..	..	..	1	..	..	6	..	28
Total for 42 weeks, 1905		3	3	..	..	20	72	..	..	245	46	1403
Corresponding period in	1904 ..	3	3	..	..	10	31	..	..	387	179	3942
	1903 ..	3	10	..	..	3	4	2	..	422	153	3350
	1902 ..	..	..	..	..	8	39	..	..	465	151	2998

Epizootic Lymphangitis, Jan. 2 cases; Feb. 2; Mar. 10: May, 1; June, 7: July, 2; Week ending Sept. 9, 1: Total 25

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Oct. 26, 1905.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

tends only to the side on which the operation is performed, and is consequently stronger.

The influence of milking upon the proportion of fat is shown by one of the tests. The same cow was milked several times, and simultaneously by two different milkers, who at each operation changed sides. The milk of each side was collected separately. One of the milkers performed the operation by exerting a simple alternating pressure upon the teat, while the other performed a downward massage at the same time. The milk collected by the latter was always markedly richer in fatty matter than that collected by the former. The difference was considerable, since in the first case there was 55 per cent. of the total yield, and in the second 45. The method of milking had therefore a great influence upon the quality of the milk and this influence is not explainable, unless it is granted that it bears some relation to the excitation produced On the other hand, the milk obtained at the beginning of the operation was not so rich as that obtained at the end. Up to the present this fact has been explained by the statement that a prolonged operation ends by detaching from the milk vessels of the udder the particles of butter adhering to the walls. M. Lepoutre remarks that the operation is performed more vigorously at the end than at the beginning. The excitation must therefore be stronger, and the reflex action greater upon the tissues, thus causing a milk secretion richer in fat.—*Farmers' Gazette.*

Mortality amongst Lambs in Lincolnshire.

A serious loss of lambs is reported in many parts of Lincolnshire, and the disease, which is known as the "Autumn Lamb Disease," is doing much mischief in the best of the sheep farming districts. Both in North, East, and Mid-Lincolnshire is this complaint most prevalent, but the worst case recorded is that of a large long-wool flock master in the parish of Baumber, where upwards of a hundred lambs have died. This disease, which has baffled the skill of the most expert in animal physiology, is rendered more complex by the fact of a large number of lambs being attacked and dying in various different ways, whilst upon analysis not in one out of six are the symptoms the same. That these young sheep suffer from many parasitic diseases is well known, but one difficulty which presents itself, and which is overwhelming evidence of the insidious nature of the complaint and the suddenness of its approach, is that the stomachs of many lambs when dead have been found to contain a sufficiency of good food. It is difficult, indeed, to diagnose a disease which strikes so suddenly, for no sooner is the animal attacked than it is dead. One suggestion which has been made is that it may be a development of some other parasite which causes death, as in the case with the liver fluke; but death from such a cause would be of a lingering nature, and, moreover, there are plenty of well-authenticated cases where no worms or parasite of any

description has been found in the body of the dead lambs. Again, the theory of high farming, with disease in the land, as it were, would seem feasible enough were it not that, for some reason which no one can explain, there are farms on the Wolds (hilly land with chalky subsoil), where its ravages have been severest, which have practically been missed. Lambs have died, too, when they have been drenched freely, and they have also died when they had not been drenched at all. There is not a single item of evidence which goes to show that overstocking has anything to do with the cause of the scourges under which Lincolnshire has been suffering during the past few weeks. One man has lost more heavily than another, apparently for no assignable cause. Reviewing the situation, it may be fairly concluded that there is in our midst a disease of which flock masters and veterinary surgeons alike have little knowledge, that it resists all efforts to cure it, that its attack is sudden, that an animal is dead almost as soon as the symptoms manifest themselves, and that from 15 to 30 per cent. of the flock generally succumb to this disease, which is only known as the "autumn lamb disease."—*The Standard.*

ALLEGED NEGLIGENCE—APPEAL.

In the High Court of Justice, King's Bench Division, Court for Crown Cases Reserved, Before the Lord Chief Justice, Mr. Justice Wills, and Mr. Justice Darling, —Stanbury *v.* The Mayor, &c., of Exeter.

This case, which was argued on Wednesday last, Oct. 25th, was plaintiff's appeal from the judgment of the County Court Judge at Exeter, and raised the question of the liability of local authorities for the alleged negligence of their veterinary inspector.

Mr. Foote, K.C., and Mr. W. T. Lawrance appeared for the appellant; and Mr. Clavell Salter, K.C., and Mr. Hawke for the respondents.

It appeared that a Mr. Heath, the veterinary inspector appointed by the defendants, who, it was admitted, were the local authority within the meaning of the sections and order quoted, had, on what turned out to be a mistaken suspicion that it was suffering from sheep-scab, detained a ram belonging to the plaintiffs, who had suffered damage thereby, and had brought an action against the defendants as being the employer or principal of Heath, against whom they alleged negligence. The learned County Court Judge held that he was not the servant of the local authority (the defendants) in what he did, but was acting under an order of the Board of Agriculture, and gave judgment for the defendants.

Mr. Foote contended that Heath was the servant or agent of the defendants. By section 22 of the Diseases of Animals Act, 1894, it was enacted at follows:—"The Board of Agr culture may make such orders as they think fit subject and according to the provisions of this Act for the following purposes. . . (xiii.) For prescribing and regulating the seizure, detention, and disposal of a diseased or suspected animal, exposed, carried, kept, or otherwise dealt with in contravention of an order of the Board." By section 2—"The local authorities in this Act described shall execute and enforce this Act and every order of the Board of Agriculture as far as the same are to be executed or enforced by local authorities." By section 35—(1) Every local authority shall appoint so many inspectors and other officers as the local authority think necessary for the execution and enforcement of this Act, and shall assign to those inspectors and officers such duties, and salaries or allowances, and may delegate to any of them such authorities and discretion as to the local authority seem fit, and may at any time revoke any appointment so made; (2) Every local authority shall keep appointed at all times at least one veterinary inspector, and shall appoint, and at all times keep appointed, as many other veterinary inspectors as the Board of Agriculture, having regard to the extent and circumstances of the district of the local authority, direct. The Board of Agriculture, under the powers conferred on them by the Diseases of Animals Acts, 1894 and 1896, made an order (Sheep Scab Order of 1898, dated September 13, 1898), of which the following were the material provisions:—Section 2.—"An inspector of a local authority, on receiving in any manner whatsoever information of the supposed existence of sheep-scab, or having reasonable ground to suspect the existence of sheep-scab, shall proceed with all reasonable speed to the place where such disease . . . exists, or is suspected to exist, and shall there and elsewhere put in force and discharge the powers and duties conferred and imposed on him as inspector by or under the Act of 1894 and this order." By section 14, "Where a sheep is exposed or otherwise dealt with in contravention of the last preceding article, the inspector of the local authority, or other officer appointed by them in that behalf, shall seize, and remove and detain it, and also, where the sheep is exposed is a market, fair, sale-yard, or place of exhibition, all other sheep in or on such market, fair, sale-yard, or place of exhibition, being or having been in the same flock or in contact with the sheep affected with, or suspected of, sheep-scab, and the sheep so seized shall be dealt with in accordance with the followi g provisions." (Provisions set out at length.) Heath was appointed veterinary inspector on February 7, 1900. He submitted that by section 14 of the order the duty to seize, etc., the sheep was directly imposed on the local authority. The words "or other officer appointed by them in that behalf" showed that the duty was not cast by the order on the inspector, but upon the local authority, who could select their own officer for the purpose. Originally Heath was only appointed as cattle inspector, but was appointed for this work by the defendants. They might, after they had appointed him, have appointed some one else to do this work. He submitted that the duty to seize was imposed on the defendants, who appointed Heath to do the work, and that they were, therefore, liable for his acts.

Mr. Salter said that this point had been more fully considered in America than in England. In "McKay v. City of Buffalo" (9 Hun's Reports, 401) it was said that a corporation was liable for the acts of its servants—(1) when employed by it to perform a duty imposed on it; (2) where it could exercise control over them. Ordinarily Heath belonged to the second class; but for the purpose of seizing, etc., the sheep he was not under defendants' control. His position was analogous to that of a policeman, who was appointed by a local authority, but also had statutory duties to perform. No attempt had ever been made in England to make the authority responsible for a policeman's negligence in performing statutory duties imposed on him, though it was otherwise in the United States. By section 44 of the Act an inspector was given, for the purposes of the Act, all the powers which a constable has, under the Act or otherwise, in the place where the inspector was acting. Section 14 of the Order in terms enacted that the inspector "shall" seize, etc., the sheep. If, after his appointment, the defendants had told him to disregard the order of the Board of Agriculture, he must have refused to obey them. By section 35 (3) of the Act "the Board (of Agriculture), on being satisfied on inquiry that an inspector of a local authority is incompetent, or has been guilty of misconduct or neglect, may, if they think fit, direct his removal, and thereupon he shall cease to be an inspector." He cited "Garlick v. Knottingley Urban District Council" (2 Local Government Reports, 1,345) and "Forsyth v. Canniff and the Corporation of the City of Toronto" (20 Ontario Reports, 478).

The Lord Chief Justice, in giving judgment, said that in his opinion the learned County Court Judge was quite right in the judgment he had given and had drawn the proper distinction, though his judgment required amplification. If this were an ordinary case of the delegation to an agent by the corporation of their statutory duties, which in many cases would, of course, have to be delegated to inferior agents, the ordinary rule, *respondant superior*, would apply, and the corporation would be liable for Heath's action, which they must here assume was negligent. The case was analogous to that of a policeman, who was appointed by a local authority, but nevertheless had statutory duties to perform independent of the local authority. On the other hand, duties were often imposed on local authorities which in fact would have to be performed by some one else—one of their officers. But in this case, under section 35 of the Diseases of Animals Act, 1894, the local authority had to appoint the inspectors who were to carry out the Act and the orders made under it; and it was not unimportant to observe that the Board of Agriculture had under section 35 (3) the power of removing such inspector from his office. Section 14 of the Sheep Scab Order, 1898, imposed on the inspector appointed by the local authority the duty of seizing, removing, or detaining sheep suspected of infection of this disease, and he was bound to obey that order, independently of the local authority. Was the local authority liable if the inspector seized, etc., negligently? He thought not. In his opinion Heath was not an agent appointed to perform duties imposed on the local authorities, but to perform duties imposed on him as inspector by statute. Mr. Foote had relied on the words in the order, "or other officer appointed in that behalf." In his opinion those words referred to other duties which were imposed on the local authority by the order, and which would ordinarily be performed by some one else—for example, that imposed by the next paragraph to the section 14 of the order cited, dealing with the isolation of sheep suffering from sheep-scab. The appeal must be dismissed with costs. —*The Times.*

Alleged Cruelty to a Horse.—Appeal.

Louis Augustus Hellyer, local manager to Messrs. Timothy White Company, Southampton and Portsmouth, appealed against a conviction by the Southampton borough magistrates, for alleged cruelty to a horse, as the outcome of a prosecution undertaken by the R.S.P.C.A.—Mr. S. H. Emanuel and Mr E. B. Charles were for the appellant, and Mr. G. W. Ricketts and Mr. H. T. Baker for the respondents.

After other witnesses had been called, Inspector Slattery, R.S.P.C.A., gave evidence to the effect that the horse was very lame, suffered from canker of the foot, and was not fit to walk at all. Matter spurted from the foot as the animal walked along, and, in witness's opinion, it suffered excruciating pain.

Mr. Gould, veterinary surgeon, corroborated, stating that the horse ought to have been slaughtered, as it was useless.

Evidence as to the bad state of the horse was given also by P.C. MacDermott.

Mr. Wm. Hunting, veterinary surgeon, of London, said that if the facts were as stated by Mr. Gould the horse would be very lame if it walked, and would suffer pain, matter being exuded also probably at that stage.

Mr. Emanuel said he was not going to submit no case, because the appellants wanted all the facts to come out. But, reconcile it how they might with the evidence for the prosecution, Mr. Edie, a veterinary surgeon, attended a horse of theirs that had a cankered foot for five or six weeks, and then advised that it needed a rest for two months, and should be sent to the next repository sale, which was done. The point he wished to emphasise was that this was all Hellyer knew about the horse, and therefore he was not responsible. He relied, as he had every right to do, on the advice of the veterinary surgeon.

Appellant gave evidence in support of what had been said by his counsel. He did not observe that the horse was lame when he saw it, but believed he would have done so had it been in that condition. He knew, however, that the horse had been slung for three weeks.

Mr. Edie said it was his opinion that the horse would not be caused pain by being walked on the occasion which formed the subject of this case. It was on his advice that it was so walked and sold. When the horse was slung it was not slung off the ground.

Mr. Maynard, veterinary surgeon, gave evidence tending to show that the horse could not have been shod had it been in the condition alleged by the prosecution.

Clement Boys, farrier and carrier, said he offered £2 for the horse, as a speculation, but this was refused. He thought he could cure the horse.

Mr. Emanuel referred to the conflicting evidence of the veterinary surgeons, and suggested that, at any rate, appellant could do no other than rely on Mr. Edie's evidence, and did all that he could do in the matter.

Mr. Ricketts suggested that Mr. Edie had made a mistake, and that appellant believed he was acting in the best interests of the firm, but not of those of the horse. The advice was given not in the interests of humanity, but in the interests of the company.

The Recorder said he had no doubt that the horse was unfit to travel on the occasion referred to, and the justices were right in fining those who had anything to do with working it. He was quite satisfied with the evidence of Mr. Gould and Mr. Slattery, and it was possible that the condition of the horse had become worse through exercise after it had left, though this was not a very satisfactory hypothesis. Applying the ordinary rule in criminal cases, however, he thought he was perhaps bound, although reluctantly, to give defendant the benefit of the doubt. He would allow the appeal, but made no order as to costs. The Recorder added that the Society were not only justified in taking this case up, but bound to do so.

L.C.C. Glanders Prosecution Dismissed.

Mr. Plowden gave a considered judgment at Marylebone in the case of the Star Omnibus Company, of New Kent Road, who were summoned by the London County Council for failing to notify the local authority that there were glandered horses at their stables in Filmer Road, Fulham.

Mr. Freeman Barrett prosecuted, and Mr. Compton Smith defended.

The London County Council alleged that no fewer than ninety-five cases of glanders had broken out at the company's stables since 1903, and that in the present instance fourteen horses were so affected. It was also stated that a horsekeeper named Nichols had died from acute glanders contracted at the stables. In defence it was urged that Nichols contracted the disease at another stable, and that the horses had been suffering from chronic glanders, a condition in which there were no outward symptoms, which developed into acute glanders the day before the London County Council inspector called. In support of their case the Company called several expert witnesses, who testified to the fact that it was possible for a horse suddenly to develop outward symptoms of acute glanders after suffering for months from chronic glanders.

Mr. Plowden said he was unable to say that the steps taken by the defendants to guard against glanders, though perhaps capable of being improved upon, fell short of that degree of ordinary and reasonable care required of them by the statute. Indeed, it was so clear to his mind that the defendants had no disposition to conceal any case of glanders that he was surprised that these proceedings had been taken. He therefore found for the defendants on all the summonses, and, as they had been put to great expense to establish their innocence, he granted them £21 12s. costs.

Cruelty to a Wild Boar

At the Shire Hall, Nottingham, before Mr. George Fellows and other justices.

The defendant was Ewart Southcombe, who keeps a zoo on a small scale at Stoke-under-Ham, in Somersetshire. He is partially paralysed, although not sufficiently to prevent him from getting about, and in his absence he was defended by Mr. J. A. H. Green.

Mr. Lucas, in opening the case on behalf of the Society for the Prevention of Cruelty to Animals, said: At the latter end of last month Mr. Barron, of the Colwick Hall Hotel, bought some wild beasts from the defendant. Amongst them was a wild boar, for which Mr. Barron gave £5 10s. It was despatched in a case from Stoke-under-Ham on September 22nd, about three o'clock in the afternoon, and arrived at Colwick Hall about ten o'clock the next morning When it got to Colwick Hall the animal was found to be dead—a circumstance not to be wondered at considering the way it was put in, as the poor thing had been crammed into a case which was very much too small, the case being 3ft. 9in. in length, and the boar 4ft. 9in. The case was 14in. in width, whereas the boar was 19in. across the shoulders and 17in. across the back. The surprising thing was that the boar could have been crammed in at all. It was weighed after death, and was found to weigh two hundredweight, or 16 stone. Yet the box was not big enough to put a terrier in. The boar had had to stand for the whole journey, and when taken out it was found that the fore and hind feet were doubled underneath, while the head was crammed up, so that when the case was opened it fell forward a foot. The pressure and the struggles of the animal had been such that in places the hair was worn off the body. But this was not the worst. Some board and zinc had been put on to the case, and the zinc had been hammered into the wood. Four-inch nails had been used, and to such an extent had the boar been jammed up against the wood that one nail was driven into the animal's nose, and others had gone into the hind and forequarters.

Mr. Lucas asked the Bench to say that this was one of the worst cases of cruelty that had ever been brought before them. As to ventilation, there were five little holes in the box, about the size of a penny. When Mr. Taylor, the veterinary surgeon, examined the boar, he found that it had died from suffocation and loss of blood, although examination showed that it must have been a healthy specimen. For the sake of humanity, he trusted that Mr. Green, who appeared for the defendant, would be able to put a different complexion on the case, and he also hoped the Bench would send the defendant to prison without the option of a fine. To show what the boar must have suffered, the men who pulled it out had to fix chains on the case, fasten it to a post, and draw the animal out by ropes, taking five men to do it. Blood was running from the bottom of the box, and the stench was so great that the men who pulled the carcase out were sick.

The magistrates examined the box.

Frank Barron, proprietor of the Colwick Hall Hotel, James William Hartshorn, and George Steel, groundsmen at the hotel, bore out Mr. Lucas's account of the condition in which the boar arrived.

P.C. Mitchell said that on September 24th, when going through the Colwick Hall grounds, he saw the boar in the box, and spoke to Barron about it. Then he reported the matter.

Inspector Watkins, of the R.S.P.C.A., deposed that there was a hole through the boar's snout, caused by a nail. It was the most terrible case he had ever known. The jaw was clenched on the wood, showing the animal's agony.

Mr. William Taylor, veterinary surgeon, corroborated, adding that the torture must have been excruciating.

Inspector Tomlinson, one of the society's officials at Taunton, stated that he had interviewed the defendant, who admitted that the boar was packed into the crate under his superintendence, and that he saw it nailed up. Defendant considered that it had as much room as it ought to have to be secure.

In reply to Mr. Green, witness added that he had never heard of any previous charge of cruelty against the defendant.

Mr. Green explained that he was at a disadvantage through having been instructed only by letter. Defendant was 25 years of age, and had been paralysed for many years. He started by keeping animals as a hobby, and it developed into a zoo. It was not likely a man who was fond of animals would wilfully cause them cruelty, beside being very bad business, as he would lose the £5 10s., the price of the boar. It would be proved by a witness that the animal walked into the cage of its own accord, and that defendant instructed his men to measure the wood and the nails.

Louis Stevens, who helped to despatch the boar, asserted that it walked out of its cage into the case of its own free will. (Laughter.) There was no pushing, and he declared that when the animal was measured it was nine inches longer than the box. Food was put into the case, where the boar had plenty of room.

In course of a lively cross-examination by Mr. Lucas, witness explained that he measured the boar with a piece of lath. Southcombe tried to get a proper case from London for it, but could not, and so used the crate. Twenty dog biscuits and some meat were put in for food.

Asked to explain why nothing but straw was found in the boar's stomach, witness was unable to account for this circumstance. The animal walked into the box.

Mr. Lucas: If the boar walked in by itself, how do you account for its head being against the door that had been nailed up?

Witness: It walked in backwards. (Loud laughter).

The Rev. Mr. Robinson, secretary of the Congregational Institute, said he had known defendant ever since he was a child. He was "an extremely pleasant man," had "a clear head," and his character was "everything that could be desired." Witness held to that opinion even after what he had heard that day.

The Chairman said it was a bad case, and a penalty of £5 would be imposed.

Mr. Lucas made an earnest request that the costs of the prosecution should be paid by the defendant. The penalty was very small; defendant ought to have gone to prison.

The Bench at first demurred, but after Mr. Lucas had pointed out that otherwise, despite the shocking nature of the case, the society would actually be out of pocket by the prosecution, they consented to allow costs amounting to £2 10s. A month's imprisonment was ordered in default of payment.—*Nottingham Evening Post.*

The Harry Perry Testimonial.

I beg to acknowledge with thanks the following receipts. The fund is still open and we hope that the total will be yet considerably augmented. The money will be utilized to the widow's best advantage—probably in the form of weekly payments. Mrs. Perry, as before stated, is in poor circumstances. She has already received two small disbursements from the sum subscribed, and is very grateful.

	£	s.	d.
Collected in the R.V.C.			
Mr. Pillers, for Class D ...	7	10	0
Mr. Cole, for Class C ...	4	15	0
Mr. De Meza, for Class B ...	3	15	0
Mr. Sheather, for Class A ...	2	10	0
Received from			
J. Simpson, F.R.C.V.S. ...		5	0
E. Wallis Hoare, F.R.C.V.S. ...		10	6
F. Thornton, M.R.C.V.S. ...		5	6
R. B. Palmer ...		5	0
J. Wolstenholme, M.R.C.V.S.		5	0
F. Morton Wallis, M.R.C.V.S.		2	6
Lewis, M.R.C.V.S. ...		2	6
C. Stevenson, M.R.C.V.S. ...		5	0
C. Hartley, M.R.C.V.S., ...		5	0
Grooms of R.V.C. per Mr. Harvey (foreman)		15	0
	£21	11	0
Disbursed for present needs	1	5	6
Balance in hand	£20	5	6

Further contributions will be gratefully received and duly acknowledged.

F. W. CHAMBERLAIN, M.R,C.V.S.
Sec. and Treasurer.

Royal Veterinary College,
Camden Town.

The Fetish of Grammar.

A great part of our current classical training is perhaps the idlest of mental exercises. And why? Because it is concerned with accidents and conventions, not with inherent properties or necessary sequences. The grammar of a language, considered as an isolated fact, and not as a term in a process, is a thing of small intrinsic significance. It is simply the code of correspondences which happens to be dominant at a particular period—a mechanism for quickly and accurately establishing the relations of the words employed in formulating and communicating ideas. Thus regarded, it has a certain logical interest, and is subject to logical criticism; but until we study it comparatively and historically (or in one word, psychologically) it seems, and cannot but seem, far more arbitrary than rational.

Now, even with all the time expended on classics in public school and university education, the scientific, the psychological aspect of grammar is not, and cannot be, brought home to one learner in a thousand. It is a matter for special and very advanced study. To the most intelligent schoolboy, the grammar of the classical languages remains a congeries of fortuitous forms, regular and irregular, and of rules which, for the most part, seem to him purely conventional. A certain acquaintance with these forms and rules is necessary if he is to read Greek or Latin with accuracy of comprehension; but it should be the aim of the teacher to spend as little time as possible on the inert and seemingly arbitrary mechanism, and in every way to facilitate the pupil's access to the spiritual content of the language he is studying. Yet, in practice, what occurs?

The pupil is made to acquire (or attempt to acquire) not the modicum of grammar which would enable him to read the language with understanding, but such a minute acquaintance with every trumpery grammatical usage of a given period as shall enable him to write something more or less like the Greek or Latin of a particular author or group of authors! It is not pretended that he can express his thoughts more vividly or comprehensibly in these languages than in his own, or in some other modern tongue that could be mastered with a fifth part of the labour. Once, indeed, Latin was the universal medium of communication throughout the educated world; but it is centuries since this ceased to be the case. At present the pupil is seldom or never called upon to express any thought of his own in either Latin or Greek. He spends hour upon hour through year upon year in translating into the classical languages the thoughts of other people—selected, not for their intrinsic value, but for their comparative ease or difficulty of translation. Half of this time, or more, is given to composition in verse!—such verse as would certainly (except in an infinitesimal minority of cases) make Sophocles and Virgil writhe in their respective sepulchres. Could any practice be, on the face of it, more insensate? If we could attain a detached point of view, and shake off the blinkers of habit, would it not seem merely unbelievable?

We shall come presently to the arguments by which this remarkable habit is defended. Meanwhile I must allude to another point in which our current classical education is, as I said above, concerned with accidents and conventions. Not only the grammar, but the vocabulary, of a particular period—nay, of one or two arbitrarily-selected authors—must be sedulously studied and exclusively cultivated. It is sheer barbarism to treat Latin as a live thing, to make use of all its riches, to try to enlarge its capabilities. We must assume that it stopped short with Cicero, or a latest with Tacitus, and expend untold study and pains on keeping it unimpeachably dead. Now I fully admit that this limitation, or at any rate some limitation, is quite necessary. We cannot treat Latin as a live language, for the principle of healthy growth, through the natural selection of new words and forms, went out of it once for all when it ceased to be one of the mediums in which men instinctively embodied their thoughts. If we must write it at all, we must write it to a certain standard; else we should soon produce a sort of pidgin-Latin, worse than the dog-Latin of the Middle Ages, inasmuch as there would be no sort of use or excuse for it. The writing of Latin, in fact, is an "elegant accomplishment," or it is nothing. But to say this is surely to reduce it to absurdity; for the few who ever attain accomplishment do so at the cost of a grotesquely disproportionate expenditure of time, while the many toil after it with infinite groaning and tribulation of spirit, and never attain it at all.

The study of the particular limitations of a given author's vocabulary has no more—nay, it has less—essential reason in it than the study of a particular set of grammatical usages. As a body of documents bearing on the political and intellectual adventures of the human spirit, the writings of Cicero are of inestimable value. It is of some importance, too, that we should read them in the original, since our imaginative realisation of his period is thereby intensified. Moreover, the qualities of his rhetoric are worthy of study—his methods of exposition, argument, invective, and appeal. They are full of artistic interest and instruction. It may even be a valuable exercise for the student to imitate them—in his own language. But the peculiarities of Cicero's vocabularly and syntax are of no moment whatever. They are absolutely fortuitous—that is to say, they depend on psychological conditions which defy analysis. The fact that such and such a word had gone out of use in Cicero's time, or not yet come into use, or, though in currency, happened not to be employed by him, is just about as insignificant, in relation to the

order of the universe, as anything well can be. It would be important if we wished to make ourselves agreeably comprehensible in conversation with Cicero himself or one of his educated contemporaries; but as there is no likelihood of such an opportunity presenting itself, I venture to maintain that to spend hundreds of hours of our priceless youth in learning to avoid locutions unsanctioned by Cicero is a cruel and almost impious waste of time and mental energy.—*The Westminster Gazette.*

The Carbolic Acid Co-efficient of Cyllin.

Jeyes' Sanitary Compounds Company, Limited, send the following statement for publication:—"In view of the prevalence of glanders in the County of Dublin and elsewhere, and in response to numerous enquiries, we have carefully determined the carbolic acid co-efficient of Cyllin for B. Mallei, and have pleasure in enclosing confirmation of our result by Professor Klein.

J. J. AINSLIE WALKER, *Secretary.*"

B. Mallei, 48 hours' Agar Culture at 37° C. Room Temp. 15°-18° C. Sub-Cultures—Period of incubation 7 days; Temp. 37° C.

Sample.	Dilution.	Time culture exposed to action of disinfectant—minutes. 5	10	15
Cyllin	1 : 1800	×	·	·
Cyllin	1 : 1920	×	×	×
Carbolic Acid	1 : 100	·	·	·
Carbolic Acid	1 : 120	×	·	·

Carbolic Acid Co-efficient $\frac{1800}{120} = 15{\cdot}0$

Oct. 6th, 1905. E. KLEIN, M.D., F.R.S.

Performing Pig Quarantined.

Performing at Pudsey Feast was an educated pig, the owner of which, Edward Hodgins, a circus proprietor, was summoned at Bradford for moving it into the place without a license.

The vigilance of the local policeman discovered the offence. He described the animal as a large, white pig, who performed on a plank, and had his bed under a living van. For the defence, says the *Yorkshire Daily Observer*, it was argued that the pig was kept scrupulously clean and free from contact with baser pigs. The Board of Agriculture had told the owner that it did not issue licenses to performing pigs.

"It is unfortunate for the encouragement of the education of pigs," said the chairman, "but the Bench cannot alter the law. You must pay the costs." The Clerk said that the pig could not be removed for twenty-eight days.

CORRESPONDENCE.

THE IMPORTANCE OF THE FLOAT.

Sir,

In the hurry of street diagnosis and the confusion sometimes occasioned by the ignorant remarks of on-lookers, the importance of the use of the float is often overlooked. I think your editorial on the "Injured Animals Act" is very opportune.

The importance of the use of the float in dilemmas cannot be too widely advertised among young practitioners. This matter is brought all the more forcibly to my mind because I was once placed in a ticklish position when acting as *locum tenens* in Greenwich.

I was sent for by the police to see an injured horse in the streets of Bermondsey. I went with all due despatch. When I arrived I found the usual crowd of onlookers, a sergeant, a policeman, and a R.S.P.C.A. officer. I found the horse had come a broad-sider and was injured on his near hind leg. Before I could put my hands on him I was asked by the sergeant "is his leg broke?" I replied "Oh, give me time, I haven't examined the horse yet." I made a careful examination and formed my own opinion. I said (bearing in mind of course that a bone, and especially a tibia, can be broken without being displaced) "Well, in my opinion the leg is not broken, but the nerve of the leg, and possibly the muscles, are injured." "Oh! well then" says the R.S.P.C.A. man "it won't be cruelty to walk him home." I said "My dear sir, that does not follow, my advice to the police is to get a float and take him to his destination, and there let the owner's veterinary surgeon see him." Then the R.S.P.C.A. man departed in peace.

Here I stood between two fires, if I had ordered the horse to be slaughtered a Court case might have followed; if I had ordered him to be walked home I might have been prosecuted for aiding and abetting cruelty. Fortuuately I am a pretty ubiquitous reader and had just previously read a case of trouble recorded in your paper through the overlooking of the use of the float.

In the hurry and bustle of diagnosis in the street, and especially with a mind pre-occupied and anxious to make a correct diagnosis (or as near correct as possible) the helpful friend the float is apt to be overlooked. Broken knees are cases in which a man may easily get into trouble for forgetting the float.

On the merits of the case recorded in last week's issue of *The Record*, I do not wish to comment much. It has often struck me that in the matter of shoulder lameness veterinary surgeons are much in the position of "the old woman that lived in a shoe." I mean that they have to deal with so many structures in the region of the shoulder that it is often very difficult to say exactly what is wrong, especially *at once*. Evidence given in this matter on the production of non-broken bones ought not to weigh too much with a judge.

And in many cases, as in the case related above, where the owner and the horse lived near King's Cross and the accident occurred in Bermondsey, it may be practically impossible to communicate usefully with the owner of the horse or his veterinary surgeon so that to such cases the judge's remark as recorded in this particular case would not apply.—Yours faithfully,

G. MAYALL.

WHAT IS IT?

Subject.—Five-year-old hunter gelding.

While feeding on oats and cut hay, dry or damped, the animal arches his neck and back, draws up his abdomen, and stamps with his fore feet, but still keeps eating. He gives one the impression of having difficulty in swallowing, but these spasms come on while the bolus is at different parts of the œsophagus, and once happened just before he started feeding. He has no trouble in eating long hay or drinking water, and looks in the best of condition; he is a spirited animal and quite capable of a day's hunting.

What is it? Does it constitute unsoundness?

W. W. LANG, M.R.C.V.S.

COMMUNICATIONS AND PAPERS RECEIVED.—Messrs. Jas. Brown, J. R. McCall, G. Mayall, J. Forbes, W. R. Davis, S. L. Stephens, F. W. Chamberlain, W. W. Lang, Jeyes. "A Disgusted V.S."

The Madras Times, The Staffordshire Advertiser.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers containing facts of interest.

Communications for the Editor to be addressed 20 Fulham Road, S.W.